If both recessive alleles are present on respective homologous chromosomes, then the individual will be:

- A :
  Heterozygous
- B :
  Heterozygous recessive
- C :
  Homozygous recessive
- D :
  Homozygous dominant

Genetic make-up of a trait is called:

- A :
  Phenotype
- B :
  Genotype
- C :
  Genome
- D :
  Gene pool

In Mendel's monohybrid cross what percentage of round seed plants were produced by F_2 heterozygous round on self-fertilization?

- A : 25%
- B : 50%
- C : 75%
- D : 100%

A test cross is conducted to determine:

- A :
  Genotype of a dominant phenotype
- B :
  Genotype of a recessive phenotype
- C :
  Phenotype of a dominant genotype
- D :
  Phenotype of a recessive genotype

If a trait is controlled by two or more than two genes, then such genes are called as:

- A : Multiple alleles
- B : Pleiotropic genes
- C : Polygenes
- D : Continuously varying traits

Which of the following is true about alleles?

A :
They occupy different loci on same chromosome

B :
They occupy same loci on different homologue

C :
They occupy different loci on same homologue

D :
They occupy same loci on respective homologue

An organism with two identical alleles for a trait is called:

- A : Heterogenous
- B : Homozygous
- C : Co-dominant
- D : Dominant

Seed shape in pea plant is:

- A :
  Trait
- B :
  Phenotype
- C :
  Genotype
- D :
  Genome

Dominance is physiological effect of an allele over its partner allele occupying:

- A :
  Same locus on same chromosome
- B :
  Same locus on respective homologue
- C :
  Different locus on same chromosome
- D :
  Different locus on respective homologue

_____ is the basic unit of biological information:

- A :
  Gamete
- B :
  Chromosome
- C :
  DNA
- D :
  Gene

Which of the following depicts the Mendel's dihybrid ratio?

- A :
  3 : 1
- B :
  9 : 3 : 3 :1
- C :
  9 : 7
- D :
  15 : 1

Submit Quiz

In dihybrid cross, out of 16 plants obtained, the number of genotypes will be:

- A : 4
- B : 9
- C : 16
- D : 12

_____ is a physiological effect of an allele over its partner allele on same gene locus.

- A :
  Epistasis
- B :
  Dominance
- C :
  Bombay phenotype
- D :
  Gene linkage

Eye colour in heterozygous Drosophila with genotype $w^{+}w$ is an example of:

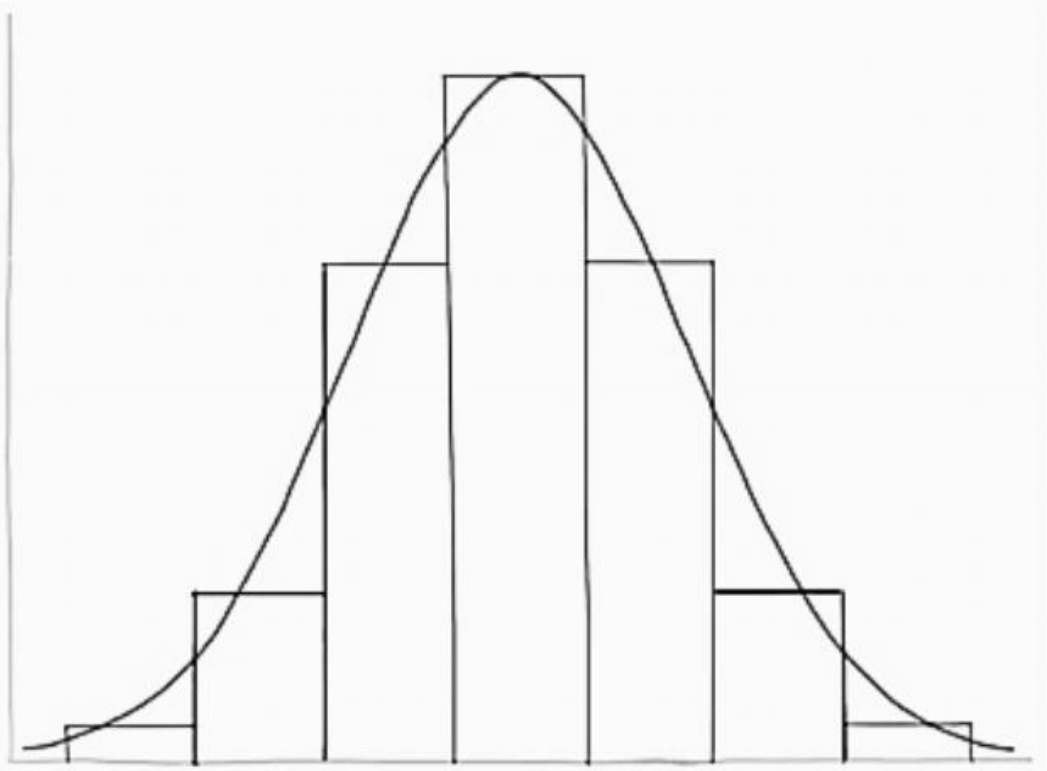
- A :
  Complete dominance
- B :
  Incomplete dominance
- C :
  Co-dominance
- D :
  Over dominance

Submit Quiz

Intelligence is an example of:

- A : Dominance
- B : Pleiotropy
- C : Epistasis
- D : Polygenic inheritance

Which of the following trait can be related with given graph



A :

Tongue rolling

B :

ABO Blood Group

C :

Seed colour in pea plant

D :

Eye colour in human

Multiple alleles are the alleles of a gene and are always:

- A : More than 1
- B : More than 2
- C : More than 3
- D : More than 4

Types of blood group A, B, O and AB are known as:

- A :
  Phenotypes
- B :
  Genomes
- C :
  Genotypes
- D :
  Multiple alleles

Submit Quiz

Which of the following blood group in humans is an example of co-dominance?

- A : A
- B : AB
- C : B
- D : O

Example of autosomal recessive trait:

- A :
  Haemophilia A
- B :
  Haemophilia B
- C :
  Blue blindness
- D :
  Hypophosphatemia

Which one is mismatched?

A :

Haemophilia C – autosomal

B :

Blue opsin - autosome 7

C :

tfm – X chromosome

D :

Pattern baldness – X linked

Partially functional opsins are present in

- A :
  Protanopia
- B :
  Deutranopia
- C :
  Red green colorblindness
- D :
  Protanomalous

Most prevalent abnormality of blood clotting factor is of:

- A : Factor VII
- B : Factor VIII
- C : Factor IX
- D : Factor X

Chromosomal combination of a person with tfm syndrome is:

- A : XO
- B : XY
- C : XX
- D : XYY

Submit Quiz

_____ gene is male sex switch which triggers developmental process towards maleness:

- A : Se
- B : SRY
- C : tfm
- D : H

Linked genes can be separated through:

A :

Segregation of alleles

B :

Independent assortment

C :

Crossing over

D :

Mutation

Gene for formation of blue opsins is located on:

- A :
  Chromosomes # 19
- B :
  Chromosome # 9
- C :
  Chromosome # 7
- D :
  Chromosome # 11

It represents normal colour vision:

- A : Monochromacy
- B : Dichromacy
- C : Trichromacy
- D : Tetrachromacy

Genes for which of the following form a linkage group on chromosome 11?

A :

Leukemia, Albinism

B :

Hemophilia, Gout

C :

Gout, Sickle cell anemia

D :

Color blindness, Hemophilia

Hemophilia B is due to absence or abnormality of blood clotting factor:

- A : VIII
- B : IX
- C : X
- D : XI

A dichromate is unable to perceive:

- A :
  One primary colour
- B :
  Three primary colours
- C :
  Two primary colours
- D :
  All the colours

Women with normal colour vision whose father was red-green colour blind married a red-green colour blind man. What is the probability of her first born child being red-green colourblind:

- A : 1.0
- B : 0.75
- C : 0.66
- D : 0.50

Two normal parents have an albino child. What is the probability that their next child will also be an albino?

- A : 0%
- B : 50%
- C : 25%
- D : 100%

A boy receives his X-chromosome from:

- A :
  His mother only
- B :
  Both father and mother
- C :
  His father only
- D :
  Either father or mother

A hereditary disease which is never passed on from father to son is:

- A :
  Y- linked disease
- B :
  Autosomal disease
- C :
  X- linked disease
- D :
  None of these

Haemophilia is caused by a sex-linked, recessive allele. Two parents have a haemophiliac son, a normal son and a haemophiliac daughter.

What are the most likely genotypes of the parents?

- A :
  Mother X^HX^h Father X^hY
- B :
  Mother X^HY^h Father X^HY
- C :
  Mother X^hX^h Father X^HY
- D :
  Mother X^HY Father X^hY

A normal woman whose father was red-blind marries a red-blind man. What proportion of their children can have normal colour vision?

- A :
  25%
- B :
  75%
- C :
  50%
- D :
  100%

A person having recessive alleles for blue opsins on autosome 7 can perceive:

- A :
  Blue color
- B :
  Red and green colors
- C :
  All three primary colors
- D :
  Red and blue colors

Which of the following is X-linked dominant trait in humans?

A :
Hemophilia A

B :
Vitamin D resistant rickets

C :
Red-green colour blindness

D :
Testicular feminization syndrome

Haemophilia can be the result of:

- A :
  Reduction of blood clotting factors
- B :
  Complete absence of blood clotting factors
- C :
  Malfunctioning of blood clotting factors
- D :
  All A, B, C

If a carrier woman for haemophila is married to a normal man, then all of the following combinations can exist except:

- A : X^HX^H
- B : X^HY
- C : X^hY
- D : X^hX^h

If a female is colour blind having genetic combination X^cX^c, then the possible combination of her parents should be:

- A : x^Cx^C, x^CY
- B : x^Cx^C, x^cY
- C : x^cx^c, x^cY
- D : x^Cx^c, x^CY

This is not true about testicular feminization syndrome:

- A :
  It is androgen insensitivity syndrome
- B :
  Individuals are females in appearance
- C :
  Having blind vagina but no uterus
- D :
  Degenerated testes are present in scrotum

Submit Quiz

A person can differentiate between colours due to presence of normal:

- A :
  Rod cells in retina
- B :
  Cone cells in retina
- C :
  Rod cells in cornea
- D :
  Cone cells in cornea

Submit Quiz

It passes directly from father to son:

- A :
  X-linked trait
- B :
  Y-linked trait
- C :
  X-linked recessive trait
- D :
  X-linked dominant trait

Submit Quiz

Gene for blood clotting factor XI is located on:

- A :
  X chromosome
- B :
  Y chromosome
- C :
  Autosome
- D :
  Both X & Y chromosomes

Submit Quiz

Physical association of two genes is known as:

- A : Heterozygous
- B : Recombination
- C : Linkage
- D : Dominance

If a carrier woman for haemophilia is married to a normal man, then all of the following combinations can exist in progeny except:

- A : X^HX^H
- B : X^HY
- C : X^hY
- D : X^hX^h

Genes present on both X and Y chromosomes are known as:

- A : X-linked
- B : Y-linked
- C : Sex linked
- D : Pseudoautosomal

Even a single recessive allele on X chromosome in male can be expressed because:

- A :
  All genes on X chromosome can be expressed
- B :
  Y chromosome has dominant allele for that trait
- C :
  X chromosome alleles are dominant over Y chromosome
- D :
  Y chromosome does not have counter part of allele of X chromosome